

DETAILED ACTION

Response to Amendments

1. This action is in reply to the response filed on October 5, 2010.
2. Claims 1, 9, 12, 14, 21, 26, 28, 30, 31, and 38 are amended.
3. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 are currently pending and have been examined.
4. The Examiner has carefully reviewed the Applicant's response and has determined that the rejection stands and is resubmitted below addressing the claims as modified by said amendments.

Claim Rejections – 35 USC § 112 - 1st Paragraph

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1, 4, 5, 28 and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains

subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Many features critical or essential to the practice of the invention, but not included in the claims is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

7. With respect to Claims 1 and 28, the limitations describe "...sending a message containing information...", however the manner in which a message will be sent from a rating device to a measuring device has not been described in sufficient detail. Claims 1 and 28 do not provide sufficient detail essential to the practice of the invention since it does not disclose the protocol or algorithms used to determine how the messages containing information about the initial data delivery limits will be sent from the rating device to a measuring device. Neither the claims nor the disclosure distinctly describes the criteria or the method in which sending a message from a rating device will be executed. Claims 4, 5, and 29 do not resolve the deficiencies set forth in claims 1 and 28 and are therefore rejected for the same reasons.

Claim Rejections - 35 USC § 112 – 2nd Paragraph

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 9, 12, and 13 are rejected under 35 USC 112 second paragraph.

Independent Claim 9 recites the limitation "to measuring device" in limitation

4. There is insufficient antecedent basis for this limitation in the claim. The dependent claims 12 and 13 do not remedy this flaw and are therefore also rejected.

10. Claims 30 and 31 are rejected under 35 USC 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 30, the word "means" is preceded by the word(s) "for causing" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 101

11. The following is a quotation of the first paragraph of 35 U.S.C. 101:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claim 38 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The aforementioned claim is directed toward providing information in relation to an electronic communication device via a data signal. The USPTO is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. See *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal per se, the claim must be rejected under 35 USC 101 as covering non-statutory subject matter. See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments

are not directed to statutory subject matter) and Interim Examination Instructions for Evaluating Subject Matter Eligibility under 35 USC 101, Aug 24, 2009; p2. The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals per se, which the USPTO must reject under 35 USC 101 as covering both non-statutory subject matter and statutory subject matter. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 USC 101 by adding the limitation "non-transitory" to the claim. Claim 38 as recited can be interpreted to be embodied on abstract mediums such as carrier waves and signals, and therefore not eligible for patent protection. The term "computer-readable medium" may also include solid-state memories, optical and magnetic disks, and carrier wave signals. Accordingly, claim 38 is not eligible for patent protection.

Claim Rejections - 35 USC § 103

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - a. Determining the scope and contents of the prior art.
 - b. Ascertaining the differences between the prior art and the claims at issue.

- c. Resolving the level of ordinary skill in the pertinent art.
- d. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 are rejected under 35 USC 103(a) as being unpatentable over Ephraim et al., US Patent Application Publication No US 2004/0077332 A1 in view of Francis et al., "Design Issues for Prepaid Data Services", herein referred to as "Francis" in further view of Tubinis, US Patent Application Publication No US 2003/0014367A1.

15. With respect to Claim 1, 9, 14, 16, 17, 23, 25, 28, 30, 32, 34, 37, and 38, Ephraim discloses the following limitations,

- *reserving resources from a prepayment system for prepaid data services* (see at least Abstract: "...A system (FIG. 1) and method for providing prepaid data transfer services to a subscriber (12) through a communication device, such as a wireless or wireline device..."), *the prepaid data services being divided into at least two service groups of different charging criteria in a network*(see at least paragraph 57: "...In this preferred embodiment, prepaid server 34 distributes tokens to both data monitor 38 and voice network 36, such that both types of services can optionally be operated on a prepaid basis. ..."), *wherein an initial data delivery limit is set for each service group based on the resources and*

information about the charging criteria (see at least paragraph 29: "...A prepaid system monitors the data network in order to determine whether a particular requested data transfer service should be authorized, for example, according to the amount available in the account of the subscriber..")

- *sending a message containing information about the initial data delivery limits from a rating device to a measuring device, wherein a proportional data delivery limit is allocated for each service group individually;(see at least paragraph 39: "...As shown, prepaid server 34 communicates with data monitor 38 (optionally through Data Payment Server 32) in order to be able to determine the type of data transfer services which are being provided from Internet 24 and/or another external network. Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34...")*
- *and the proportional data delivery limit for each service group is defined as a proportion of the initial data delivery limit for the respective service group,(see at least paragraph 12: "...According to preferred embodiments of the present invention, the calculation of the debit is divided into two parts...."; see at least paragraph 52: "...Data monitor 38 is preferably responsible for finding the exact rule which matches the data being monitored, and then to calculate a charge for the data transfer..")*

Ephraim does not distinctly disclose the following limitations, but Francis however as shown discloses,

- *wherein remaining resources to the service groups are reallocated based on a pricing weight of each of the service groups* (see at least page 4, definition of Prepaid Application Server (PAS): "...allocates quotas to PUP, tells the PUP whether to allow or deny service..."; paragraph 13, first paragraph, last sentence: "...the PAS should be able to shrink quotas so that the most efficient strategy, whatever it is may be implemented...")

Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Francis discloses an efficient means for the PUP and PAS systems as an efficient means for measuring and enforcing usage, and shrinking quotas. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services to a subscriber of Ephraim with the system for allowing multiple services from a prepaid account of Francis.

Ephraim and Francis disclose all of the above limitations, the combination of Ephraim and Francis does not distinctly disclose the following limitations but Tubinis however as shown discloses,

- *each pricing weight being defined for the respective service group as a proportion of a sum of the proportional data delivery limits to the initial*

data delivery limit of the service group to obtain a new proportional data delivery limit for each service group individually, (see at least paragraph 194: "...In response to the downlink count threshold or the uplink threshold being reached...re-allocate the remaining information units between information units between a new downlink count threshold and a new uplink count threshold...")

- *the new proportional data delivery limits being for use in delivery of data after at least one of the service groups has exceeded its proportional data delivery limit.(see at Abstract: "...To notify the client that a threshold for a service has been reached and/or to enable the client to top-up, either in-band or out-of-band sessions may be used based on any of a number of factors, including a characteristic of the session in progress implementing the service, the capabilities of the user terminal, the capabilities of the application and application server providing the service, or any combination thereof....")*

Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Francis discloses an efficient means for the PUP and PAS systems as an efficient means for measuring and enforcing usage, and shrinking quotas, Tubinis discloses allocating and reallocating proportional data delivery limits for each service group via downlink and uplink count thresholds. Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to combine the system and method for providing prepaid data transfer services to a subscriber of Ephraim and the system for measuring, enforcing usage and shrinking quotas of Francis with the rating and accounting computer (count metering unit) of Tubinis.

16. With respect to Claim 4,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *comprising receiving a report from the measuring device at the rating device only after all of the reserved resources are used.* (see at least paragraph 15: "...The prepaid system preferably allows packets to be transferred between the wireless device and the data service provider (server) only if the subscriber's account balance is sufficient and/or if the packets are "free". Optionally and more preferably, the system notifies the subscriber when the subscriber's balance is low or exhausted, for example via an SMS message or an HDML message sent to the wireless device. Alternatively, the prepaid system can optionally notify the subscriber by sending a message containing a pointer (for example a "recharge URL" to a page that contains such a message...")

17. With respect to Claim 5, 13, 18, 22, 27, 29, 31 and 36,
Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,
 - *wherein the initial data delivery limit is defined as a volume equivalent to a same amount of money for each service group.* (see at least paragraph 12: "...According to preferred embodiments of the present invention, the calculation of the debit is divided into two parts....")

18. With respect to Claims 6, 7, and 15,
Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,
 - *a prepayment system hosting prepaid resources;* (see at least Abstract: "...A system (FIG. 1) and method for providing prepaid data transfer services to a subscriber (12) through a communication device, such as a wireless or wireline device...")
Ephraim discloses all of the above limitations, Ephraim doesn not distinctly disclose the following limitations, but Tubinis however discloses,
 - *a rating device configured to receive information of the prepaid resources and of charging criteria of service groups and to set initial data delivery limits for the service groups based on the received information; and;*(see at least paragraph 11: "...the rating and account balance information is

stored in a separate computer 120 and the functions performed by the Prepaid Adjunct Processor are initialized by computer 120...”; paragraph 14: “...a rating and accounting subsystem can calculate the number of minutes or volume of information unit (e.g., bytes) left to reach a prepaid threshold or spending threshold...”; paragraph 16: “...Once the unique code has been received and verified, and the meter of the Prepaid Adjunct Processor 118 has been re-initialized with the new values, the suspended call is allowed to continue...”)

- *a measuring device configured to allocate a proportional data delivery limit for each service group individually, wherein each proportional data delivery limit is defined as a proportion of the initial data delivery limit for the respective service group, to measure use of each of the service groups* (see at least paragraph 242: “...after receiving a count threshold from SSF module 662, PIM 344A may meter the number of information units exchanged by incrementing the accumulative number of information units received as part of forwarding uplink session packets 160 and compare the accumulative number to the uplink threshold count, and may separately meter the number of information units received as part of forwarding downlink session packets in the same manner. If either the uplink or the downlink threshold count is reached, the PIM 344A may report both uplink and downlink usage to the SSF module 362, and if the combined usage is still smaller than the original total count threshold

converted from the call period received from the SCF module 148, the SSF module may be configured to re-allocate the remaining information units between a new uplink threshold count and a new downlink threshold count....”)

- *each pricing weight being defined for the respective service group as a proportion of a sum of the proportional data delivery limits to the initial data delivery limit of the service group to obtain a new proportional data delivery limit for each service group individually for delivery of data when a one of the groups exceeds its proportional data delivery limit., (see at least paragraph 194: “...In response to the downlink count threshold or the uplink threshold being reached...re-allocate the remaining information units between information units between a new downlink count threshold and a new uplink count threshold...”; Abstract: “...To notify the client that a threshold for a service has been reached and/or to enable the client to top-up, either in-band or out-of-band sessions may be used based on any of a number of factors, including a characteristic of the session in progress implementing the service, the capabilities of the user terminal, the capabilities of the application and application server providing the service, or any combination thereof....”)*

Ephriam and Tubinis disclose all of the above limitations, the combination of Ephriam and Tubinis does not distinctly disclose the following limitations but Francis however as shown discloses,

- *and to reallocate remaining free resources to the service groups based on a pricing weight of each of the service groups* (see at least page 4, definition of Prepaid Application Server (PAS): "...allocates quotas to PUP, tells the PUP whether to allow or deny service..."; paragraph 13, first paragraph, last sentence: "...the PAS should be able to shrink quotas so that the most efficient strategy, whatever it is may be implemented...")

Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Tubinis discloses allocating and reallocating proportional data delivery limits for each service group via downlink and uplink count thresholds and Francis discloses a PUP and PAS system as an efficient means for measuring and enforcing usage, and shrinking quotas. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services of Ephraim and the rating and accounting computer (count metering unit) of Tubinis with the measuring, enforcing usage and shrinking quotas of Francis.

19. With respect to Claim 8,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *wherein the at least one data communication network comprises a packet core communication network for communication of data between users and the measuring device and a public data network for communication of data between the measuring device and providers of the prepaid services.*(see at least paragraph 11: "...the subscriber uses a wireless device, such as a cellular telephone for example, to access data services, such as SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network and a GGSN, or other gateway, which resides between the external network (such as the Internet) and the internal data network (such as an internal GPRS packet network)...")

20. With respect to Claims 12,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *wherein the measuring device is further configured to direct a report to be sent from the meter to the rating device only after all of the reserved resources are used.* (see at least paragraph 15: "...The prepaid system preferably allows packets to be transferred between the wireless device and the data service provider (server) only if the subscriber's account balance is sufficient and/or if the packets are "free". Optionally and more preferably, the system notifies the subscriber when the subscriber's

balance is low or exhausted, for example via an SMS message or an HDML message sent to the wireless device. Alternatively, the prepaid system can optionally notify the subscriber by sending a message containing a pointer (for example a "recharge URL") to a page that contains such a message. ...")

21. With respect to Claim 21, 26, and 35,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *after all of the reserved resources are used, a report is directed to be sent from the apparatus to a rating device configured to obtain information of the prepaid resources* (see at least paragraph 39: "...Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34. Such characteristics include, but are not limited to, the type of data being transferred and/or the type of data which is requested to be transferred, the amount of data being transferred and the identity of the subscriber (or wireless device 12) for which the data is being transferred..")
- *and of the charging criteria of service groups and to set the initial data delivery limits for the service groups based on the obtained information.*(see at least paragraph 39: "...Music data might optionally be

charged at a lower rate than other kinds of data packets. Packets with error messages might be free. Thus, data monitor 38 more preferably calculates the charge for the data transfer according to an arbitrary internal unit, which is described in greater detail below as a "token", which most preferably does not require any information about one or more characteristics of the subscriber...")

Response to Arguments

22. Applicant's arguments filed October 5, 2010 have been fully considered but are not persuasive. Examiner respectfully disagrees on all of the allegations as argued. Examiner, in the previous office action, gave detail explanation of claimed limitation rejections. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111[R-1] Interpretation of Claims-Broadest Reasonable Interpretation. During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification'. Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 162 USPQ 541,550-51 (CCPA 1969). Ephraim discloses the use of pricing weights for different services in calculating a

charge for a data transfer (paragraph 52) for controlling prepaid services.

Ephraim further discloses a mechanism and/or system utilizing bytes or service data., and in some cases the two unused amounts (i.e. data and time) can be returned to the prepaid system and the system will measure the minimum of the two options. Ephraim further discloses that the system can "reserve" an amount of service rather than request a chunk or amount and run the "left over" to the system (page 5, lines 1-9), while Francis discloses an efficient means for the PUP and PAS systems as an efficient means for measuring and enforcing usage, replenish, and shrinking quotas, and Tubinis is used to disclose allocating and reallocating proportional data delivery limits for each service group via downlink and uplink count thresholds. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services to a subscriber of Ephraim and the system for measuring, enforcing usage and shrinking quotas of Francis with the rating and accounting computer (count metering unit) of Tubinis.

23. Moreover, amended claim 38 recites a computer program embodied on a computer-readable medium, a machine readable data, machine readable data carrier, machine readable data base, and/or machine readable media. The term "computer-readable medium" may also include solid-state memories, optical and magnetic disks, and carrier wave signals. Accordingly, claim 38 is not eligible for patent protection. Furthermore, claims 1 and 28 do

not provide sufficient detail essential to the practice of the invention since it does not disclose the protocol or algorithms used to determine how the messages containing information about the initial data delivery limits will be sent from the rating device to a measuring device. Neither the claims nor the disclosure distinctly describes the criteria or the method in which sending a message from a rating device will be executed. Regarding claim 30, the word "means" is preceded by the word(s) "for causing" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function, Applicant fails to distinctly describe the subject matter which applicant regards as the invention.

Conclusion

24. **THIS ACTION IS MADE FINAL.** See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

26. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Kimberly L. Evans** whose telephone number is **571.270.3929**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Jami Plucinski** can be reached at **571.272.6811**.
27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free). Any response to this action should be mailed to: **Commissioner of Patents and Trademarks**, P.O. Box 1450, Alexandria, VA 22313-1450 or faxed to **571-273-8300**. Hand delivered responses should be brought to the **United States**

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